United States
Department of Agriculture

Forest Service

Lolo National Forest

The Lolo National Forest Plan
Five Year Review

April, 1993

MANAGEMENT SUMMARY

Federal Regulations (36 CFR 219.10) require a five year review of the forest plan to "determine whether conditions or demands of the public have changed significantly" and thus resulting in a need to change the plan. This document presents the findings and recommendations of the five year review conducted on the Lolo National Forest in the summer and fall of 1992.

Monitoring and evaluation conducted during the first five years of forest plan implementation indicate that the plan is working Management Area (MA) allocations and their standards have been crucial in forest plan implementation. Tested many times, the standards have proven to be the key to achieving the plan's goals and objectives. MA allocation mapping has been found adequate, as evidenced by the general lack of changes needed during project level design and implementation.

Underpinning much of the discussion in this review is an important shift in the approach the Forest Service takes to resource management. The Chief of the Forest Service initiated this change in his June 1992 announcement about "using an ecological approach in the future management of the National Forests and Grasslands " A change of this magnitude cannot be made all at once And, as yet, much is unknown about the effects of this shift.

A number of actions recommended in this review are first steps, embodying a comprehensive ecological approach to resource management, that will set up a framework for future actions Our overall strategy is to judiciously and incrementally change our forest plan where immediate action is needed, and to prepare for a forest plan revision in the 10 to 15 year time frame mandated by law

The issues surfaced during the review do not require a forest plan revision as defined by the planning regulations There are several issues that require changes to the plan.

Issues discussed in this review are presented in two groups.

- issues needing changes to the plan that are within the Forest Supervisor's authority such as the processing of an amendment; and
- issues that can be resolved without change to the Forest Plan

Seven issues fall in the first group. Resolving them will require minor wording changes to two forest-wide goals, several forest-wide and MA standards, and one monitoring item

Issues in the second group require a variety of actions In some cases, implementation actions can be taken immediately to resolve the issues, while others need further monitoring and evaluation before specific actions can be formulated These may eventually result in forest plan changes.

The significance of actions proposed, as defined in the National Environmental Policy Act (NEPA), is not included as part of this Review. This determination will be the first step to take before implementing each action

The team recognized that wording and formatting changes could be done to make things clearer. Publishing a second edition of the plan was considered, but rejected because it cost too much Further, such an edition would not result in substantive change to the way the plan would be implemented during the time remaining before the mandatory revision.

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INTRODUCTION

HISTORY

In 1976 the National Forest Management Act mandated each national forest to complete a comprehensive forest plan As the lead forest in the Northern Region, the forest distributed its first draft of the plan for public comment in January 1980, and a second draft in January, 1982 In April 1986, the Regional Forester approved the Lolo's forest plan

Although the forest began to follow its forest plan direction as early as 1980, formal implementation did not begin until 1986 Since 1987, the forest has produced an annual monitoring and evaluation report

The forest plan has been amended 14 times Appendix A contains a brief description of these amendments

THE REVIEW PROCESS

In March 1992 an interdisciplinary team was created to review the forest plan Participants included a core interdisciplinary team, forest managers and resource specialists, and Regional Office planning and resource specialists

The team reviewed the forest-wide management goals, standards and management area (MA) direction The team asked the following questions:

- Is it working? Is it working well?
- Does it need to be changed now?
- If so, what are those changes?

The team also examined the findings of the 1991 Monitoring and Evaluation Report to see if more action was needed to solve the problems it identified

During the process, team members raised concerns and presented possible changes Their concerns were based on first-hand field experience, on participation in project-level interdisciplinary teams conducting environmental analyses, on project and forest-wide monitoring, on professional research, and on public concern raised by local news media, in letters written to the Forest Service, in appeals on this and other surrounding forests, and in personal contacts

Issues identified have been grouped as follows

- those needing forest plan changes, which can be authorized by the Forest Supervisor, and
- issues considered, but not requiring immediate change to the forest plan Some of these issues need a different kind of follow-up action, such as more evaluation before change can be recommended, project-level implementation changes, or a clearer understanding among resource managers Issues that were dismissed are also included in this group

The forest management team, including the district rangers and program officers, reviewed the initial list of resource issues in May 1992 and concurred with the direction the review was taking. Then, the review team developed issue papers, which were presented to the Regional Office in October 1992 The papers were changed in response to comments received

ISSUE PAPERS

ACTIONS NEEDING FOREST PLAN CHANGES

- Big Game Winter Range
- Ecosystem Management and Forest Health
- Elk Security
- Heritage Program
- Livestock Grazing
- Sensitive, Threatened and Endangered Species
- Wilderness Resource

ISSUE: Big Game Winter Range

I. PROBLEM STATEMENT

Goal 2 directs the forest to provide habitat for increasing populations of big game animals. Management Areas (MA) 18, 19, 22 and 23 are designed to optimize winter range habitat. Standard 7 of MA 18, and standard 6 of both MA 22 and MA 23 require a 50:50 cover to forage ratio be met. In 1991, monitoring item 1-6 concluded that while winter range enhancement burning targets had been met, those targets were too low.

Winter range forage productivity in western Montana depends on fire. Before fire suppression, fires burned winter ranges every five to 30 years. This pattern resulted in shrub communities that produced from 200 to 400 pounds of forage per acre per year. After 60 years of fire suppression, dense Douglas-fir stands now occupy some winter range The trees shade the shrubs so the shrubs produce less forage In some places, shrub forage productivity has dropped to only 30 to 100 pounds per acre.

Consequently, prescribed burning is done to increase range productivity Although the forest has been meeting its forest plan target of burning 1600 acres per year, current research indicates a need to burn 3000 acres a year to sustain productivity.

Winter range allocations mapping was done in only the dry Ponderosa pine and Douglas-fir areas, habitat groups 1 and 2 Adjacent moist Douglas-fir and grand fir/spruce areas (habitat groups 3 and 4) were not allocated, even though they provide most of the thermal cover the animals use to shield themselves from severe winter weather. Standards in MA's 18, 22 and 23 that require half the winter range be in cover, make underburning almost impossible

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

Increase the rate of prescribed burning and small-tree removal through thinning, slashing, etc Edit standard 7 of MA 18, and standard 6 of both MA 22 and MA 23, to let adjacent areas satisfy the thermal cover requirement for winter range MA's Then more burning could be done to improve the forage production on winter range

III. RECOMMENDATION AND RATIONALE

Reword standard 7 of MA 18, and standard 6 of both MA 22 and MA 23, to consider lands within or adjacent to the forage producing parts of winter range as thermal cover This would include the north, east and west aspects in habitat groups 3 and 4 These changes would allow increased burning and tree removal on winter ranges

ISSUE: Ecosystem Management and Forest Health

I. PROBLEM STATEMENT

The Forest Service is undergoing an important shift in its approach to resource management This shift was initiated service-wide in June 1992 when the Chief of the Forest Service announced that he and his staff had decided

> "that it was time to take what we have learned over the past 3 years and implement a new management philosophy, . that the Forest Service is committed to using an ecological approach in the future management of the National Forests and Grasslands By ecosystem management, we mean that an ecological approach will be used to achieve the multiple-use management It means that we must blend the needs of people and environmental values in such a way that the National Forests and Grasslands represent diverse, healthy, productive, and sustainable ecosystems " (See appendix B)

Although this shift will have effects on how we do our work, we will implement changes as we gain knowledge and validate results Two areas where we can move in the Chief's new direction are in goal 4 and in the standards for insect and disease Many of the concerns and recommended actions discussed in other issues of this review are also founded on implementing ecosystem management principles These issues include old growth, vegetative management, and sensitive, threatened and endangered species

The primary objective of ecosystem management is to sustain the productivity, resilience and diversity of natural ecological systems Goal 4 already supports ecosystem management by providing for "a pleasing and healthy environment, including clear air, clean water, and diverse ecosystems" However, the goal does not provide the emphasis for ecosystem management

A number of standards and Management Area goals do not clearly support the Chief's current direction, and this causes some confusion in implementation For instance, insects and diseases have a variety of roles in the ecosystem, both positive and negative They perform vital functions in healthy forests, such as the role of dwarf mistletoe plays in providing prime habitat for certain bird species But standards 56 through 58 portray insects and diseases as completely negative

Similarly, there is no discussion of fire's role in ecosystem management In particular, standard 44, recognizes the need to manage unplanned ignitions, but does not recognize fire as a resource management tool Fire can be used to encourage natural ecological processes to provide forage production and wildlife habitat, and to meet other vegetative management objectives Complicating the use of fire as a management tool are several issues, such as air quality and protecting private property and other resources

The following examples illustrate undesirable forest health conditions:

1 *Ponderosa pine/Douglas-fir*
The ponderosa pine/Douglas-fir forest dominates the lower elevations of the Lolo National Forest, comprising at least 20 percent of suitable timberlands. Low-intensity fires occurred every 5 to 30 years prior to fire suppression These fires maintained a forest of open, park-like stands dominated by ponderosa pine Excluding fire and removing ponderosa pine old growth resulted in dense and immature stands of ponderosa pine and Douglas-fir

These changes have affected at least 80 percent of these communities. Increases in stand density and changes in species composition, from the ponderosa pine to the more shade-tolerant Douglas-fir, have increased stand stagnation, root disease, dwarf mistletoe, and fuel loadings in these areas.

Wildlife species, such as the flammulated owl and pileated woodpecker, are dependent on this old growth type There has also been a loss of winter range because browse plants are either shaded out by the denser tree canopies or lose their overall vigor and stop producing new growth and seeds.

This ecosystem is increasingly in danger of catastrophic stand-replacing fires as fuel loadings and ladder fuels increase.

2 *Whitebark pine*
The whitebark pine-dominated community, found at high elevations, has been affected by three major problems:

- First, fire was excluded beginning in the early 1900's. In this community, fire created sites for regeneration and removed shade-tolerant conifers like subalpine fir, spruce and mountain hemlock that compete with whitebark pine

- Second, white pine blister rust was introduced about 1910. This disease typically kills 90 percent of the host trees within a stand

- Third, epidemics of mountain pine beetle in stands of lodgepole pine, have killed the majority of overstory whitebark pine in adjacent stands. The epidemics involve thousands of acres of 60-120 year old lodgepole pine

The resulting loss of seed source and accelerated development of shade-tolerant tree species has produced a significant loss of the whitebark pine-dominated community Today, the area covered by seral white bark pine communities on the Forest has diminished by more than half and the rate of decline is accelerating.

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

1 Change the wording of goal 4 and goal 8 to·

4 Provide a pleasing and healthy environment to sustain the productivity, resiliency, and diversity of natural ecological systems

8 Meet or exceed State quality standards for clear air and clean water.

2 Change the wording of standard 44 to

The Forest will use planned and unplanned prescribed fires to achieve ecosystem management goals. A prescription for fire management is required for both planned and unplanned ignitions.

3. Modify the existing insect and disease standards in the Forest Plan to reflect the new understanding of forest health and ecosystem management. Suggested wording is:

> *Standard 56 - Vegetative management practices will be utilized to maintain or restore healthy ecosystems (healthy ecosystems includes appropriate levels of dead and dying trees from a variety of causes) compatible with management objectives.*
>
> *a. Sustainable forest health will be maintained or enhanced through sound silvicultural prescriptions. Silvicultural practices will be designed to maintain or re-establish healthy ecosystem conditions in treated landscapes.*
>
> *b. Biological methods will be considered for direct control of insects, diseases, or weeds to maintain desirable forest conditions if vegetative management practices are undesirable or ineffective. Chemical control will be recommended only when other methods are ineffective.*
>
> *c. Landscapes will be risk-rated for insects and pathogens with major ecosystem roles. Natural roles and outcomes of major insect infestations and pathogens will be considered in establishing appropriate levels of risk. Current and future risk levels will be compared to healthy risk levels to help set treatment priorities.*

4. After finalizing the proposed changes to the goals and standards, evaluate the need to modify existing MA goals and standards. Develop new and revised MA goals and standards as necessary.

5 Make no changes in the Forest Plan at this time, but prepare for changes when the plan is to be revised.

III. RECOMMENDATION AND RATIONALE

Implement potential actions 1 through 4 to reflect the focus on forest health and ecosystem management. This complies with the Chief's direction and sets the stage for developing new MA goals and standards at the time of the next scheduled plan revision.

ISSUE: Elk Security

I. PROBLEM STATEMENT

Goal 2 states that the forest will provide habitat for increasing populations of big-game animals. Standard 8 says the forest will provide for "quality hunting and fishing opportunities ... (using) habitat manipulation, transportation management and planning, and by coordinating and cooperating with the Department of Fish, Wildlife, and Parks ..".

Monitoring items 1-1 and 1-2 address elk productivity. In 1991, monitoring item 1-2 said monitoring elk security is "a more critical factor than cover/forage ratios in many of our timber sales." Elk security is important because the public continues to support the existence of a large population of elk with a desirable proportion of older bulls The opportunity to kill, view or photograph a trophy-size animal is increasingly limited in the western United States.

Standard 26 says the forest will "provide a variety of hunting recreation opportunities . . to assist the Montana Department of Fish, Wildlife, and Parks in meeting their goal of maintaining long hunting seasons with minimum restrictions " This standard recognizes, but does not define, the responsibility the Lolo and Montana Department of Fish, Wildlife and Parks (MDFWP) share in protecting older bulls To protect bulls during the long hunting season, the forest has assumed the responsibility for maintaining elk security, while MDFWP has taken responsibility for managing the hunting seasons These agency roles are not spelled out in the plan.

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

1 Change the Forest Plan Monitoring Requirements to address elk security. Item 1-2 would read·

ACTIVITY, PRACTICE OR EFFECT TO BE MEASURED

Elk Security - Timber harvest or other activities that retain sufficient elk security to assist the Montana Department of Fish, Wildlife, and Parks (MDFWP) in meeting their goal of maintaining long hunting seasons with minimum restrictions as stated in Forest Plan Standard 26.

VARIABILITY (+/-) WHICH WOULD INITIATE FURTHER EVALUATION

Situations in which greater than 25% of moderate and high value elk herd units have inadequate security to carry desired numbers of bull elk through the hunting season as specified in the MDFWP 1992 Statewide Elk Management Plan. Interpretation of monitoring data must consider, in addition to vegetative, topography, and access variables, the effect that hunter numbers have on bull carryover It is recognized that increasing hunting pressure, if not limited by MDFWP regulations, will eventually override efforts to retain security and result in inadequate bull survival regardless of the amount of security retained on the Lolo Forest. Also, it is recognized that within some elk herd units, bulls are inherently vulnerable

to hunting pressure due to topography, vegetation, or animal movement patterns, and efforts to maintain security may prove futile in allowing adequate numbers of bulls to survive the hunting season.

2. Evaluate possible changes to standard 26 to clearly define roles and responsibilities of the forest and MDFWP for elk security

III. RECOMMENDATION AND RATIONALE

Incorporate elk security in monitoring item 1-2 as stated above. Since current monitoring items only measure elk productivity, this revision will make our monitoring more relevant to our elk management concerns and objectives.

Evaluate possible changes to standard 26 to clarify the shared responsibilities of the forest and MDFWP to provide elk security. Making these changes will eliminate confusion over the shared roles

ISSUE: Heritage Program

I. PROBLEM STATEMENT

Standard 54 says cultural resource inventories will be conducted and suitable mitigation measures will be taken to protect historic sites in all project areas Standard 55 directs the forest to coordinate Forest Service projects with representatives from the Confederated Salish and Kootenai Tribes.

Within the last few years, the Forest Service has placed strong emphasis on interpreting historic and prehistoric places This expanded role of cultural resource management, now referred to as "the heritage program", is not identified as such nor directed by the forest plan

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

Change standard 54 to emphasize the forest's role in identifying, protecting, enhancing and interpreting cultural resources

III. RECOMMENDATION AND RATIONALE

Change standard 54 to reflect the expanded role in the heritage program, to make the plan comply with current policy and facilitate coordination with tribes and other agencies

ISSUE: Livestock Grazing

I. PROBLEM STATEMENT

Monitoring item 2-3 shows that grazing on most allotments, particularly those with riparian areas, has exceeded forest plan utilization standards for forbs, grasses and shrubs. In some places stream banks have been damaged Based on field observations, shrub and bluegrass utilization standards are set too high because they let too much plant matter be removed.

The plan's range outputs are based on using both primary and transitory range. Primary range consists of permanent grasses, very often in riparian zones, that cattle graze heavily and consistently. Transitory range occurs in forested areas after they are disturbed by fire or logging, producing palatable forage for a time

Many grazing allotments contain riparian areas bounded by steep hillsides. The steep rises discourage livestock from using upland transitory range, reducing the actually grazed area to the riparian zones. Monitoring has shown that despite salting, herding, fencing and developing alternate water sources, permittees have had little success at getting animals to use transitory range. For allotments where carrying capacity calculations assumed uniform livestock distribution, forest plan standards for water quality, streambank erosion, and riparian vegetation management have been violated.

The Management Area (MA) 15 allocation is another issue. This MA contains only 282 acres, with a primary goal to provide livestock grazing, yet no significant grazing is currently occurring or anticipated on these lands. The fact that these lands are segregated into an MA by themselves is irrelevant to their management These lands could be reallocated to MA 1, the non-forested and noncommercial forest lands. Livestock grazing would still be allowed if they were reclassified as MA 1

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

1 Revise standard 9 for MA 14 and Rock Creek standard 21 in Chapter IV, to reduce bluegrass and shrub utilization standards so riparian zones will be adequately protected.

2 Continue to work closely with range permittees to adjust grazing schedules and herd sizes to get range allotments to comply with forest plan standards

3 MA 15 should be eliminated and the land allocated to MA 1.

III. RECOMMENDATION AND RATIONALE

Implement actions 1 and 2 Continue to emphasize range allotment administration and increase permittee participation The time before the plan is revised will give permittees time to adjust their practices.

Implement action 3 Since MA 15 includes only 282 acres and is not significantly grazed, reallocating those few acres to MA 1 would have no effect

ISSUE: Sensitive, Threatened and Endangered Species

I. PROBLEM STATEMENT

Threatened and endangered species are addressed in goal 7 and standards 24 and 27. These policy statements do not provide enough direction and emphasis to adequately manage and protect sensitive, threatened and endangered species.

First, they do not provide a mechanism to assure coordinated management across administrative boundaries For example, the Mission grizzly bear sub-population, which has continued to decline, travels across both the Lolo and Flathead national forests as well as across private, tribal, state, BLM and other public lands If recovery efforts are to be successful, actions must be coordinated.

Second, when the forest plan was developed, there was no sensitive species program in the Northern Region. The plan has very little that specifically addresses the protection and management of sensitive species (plant and animal), although goal 2 does direct us to " . provide habitat for viable populations of all indigenous wildlife species " Current Forest Service policy directs forests to include sensitive species in their forest plans

In addition to the general direction addressed above, two issues pertain specifically to the management of grizzly bear habitat

First, the forest has no open-road density standard for occupied grizzly bear habitat in the forest plan. Current research indicates a standard of one mile of open road per square mile is appropriate. Our adjoining national forests have already adopted the one mile density as a forest standard. Adopting such a standard would provide consistent management direction across administrative boundaries, and would be consistent with current research findings, and would comply with United States Fish and Wildlife Service policy

Second, an issue that has come before the Northern Continental Divide Ecosystem (NCDE) Grizzly Bear Managers Subcommittee is the implementation of a consistent strategy to eliminate the occurrence of grizzly bears digging up buried human waste as a source of food Activities leaving human-caused food sources of any kind for the bears is not consistent with the Interagency Grizzly Bear Guidelines, Grizzly Bear Recovery Plan, and the plans of the four national forests in the NCDE The forests have already addressed other human-caused food sources such as leaving food and refuse at campsites, storing food improperly or leaving food unattended, and the deliberate feeding of bears.

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

1 Change standards 24 and 27 to reflect the need to coordinate sensitive, threatened and endangered species programs across administrative boundaries.

2 Remove the word "wildlife" from goal 2 to direct this goal toward both plant and animal species

3 Develop a new standard for sensitive species consistent with FSM 2672 4 and 2672.41

4. Add an open road density standard for occupied grizzly bear habitat to standard 52 as follows:

> *In occupied grizzly bear habitat open road densities of existing roads will be restricted to a maximum of 1.0 miles of road per section and all new roads, except arterials, will be closed year-round (average values calculated over designated herd-unit analysis areas).*

5. The forest supervisors of the four national forests in the NCDE will direct that a consistent implementation strategy be put in place across the entire NCDE to eliminate human waste as a food source for grizzly bears. Any possible subsequent need for changes to the Lolo Forest Plan will be evaluated and acted upon after an agreement by the NCDE Grizzly Bear Managers Subcommittee is reached.

III. RECOMMENDATIONS AND RATIONALE

Implement action 1 to incorporate explicit references to inter-forest and inter-agency cooperation in standards 24 and 27. These references will make sure that when issues cross forest boundaries, they will be handled in a coordinated manner by all parties involved.

Implement actions 2 and 3 to add the protection of sensitive plants to the forest plan.

Add an open road density for occupied grizzly bear habitat as suggested in action 4 to make our standards consistent with our neighboring forests, with current research findings, and with U S Fish and Wildlife Service policy.

Implement action 5 to address the elimination of human waste as a food source for grizzly bears to satisfy direction given in the Interagency Grizzly Bear guidelines, Grizzly Bear Recovery Plan, and forest plans.

ISSUE: Wilderness Resource

I. PROBLEM STATEMENT

Management Area (MA) 12 consists of a number of designated wilderness areas. It also includes areas having the potential for future wilderness designation MA 12 provides specific direction for the stewardship of those lands and their unique values. However, no forest-wide goal or standards direct wilderness management. Thus there is no sense of the importance that the forest places on it's responsibility to manage wilderness. This apparent a lack of direction has become an issue as the need for protecting wilderness values has become more prominent.

Noxious weeds and other exotic vegetation are infesting an increasing number of sites in the Bob Marshall Wilderness Complex (BMWC) Public concern about weeds in the wilderness is increasing. Through monitoring of noxious weeds the Forest is locating infested sites The 1992 BMWC Wilderness Management Implementation Program directs the eradication and control of noxious weeds

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

Develop the wording to include the management of wilderness in the forest-wide management direction Evaluate the effects of implementing such direction and take appropriate action

Change MA 12 to require that in wilderness areas, noxious weeds and their future introduction will be eliminated.

III. RECOMMENDATION AND RATIONALE

Develop the wording to include the management of wilderness in the forest-wide management direction. Evaluate the effects of implementing such direction and take appropriate action This will explicitly direct the management of wilderness and recognize its equal status with the management of all other resources

Require the elimination of noxious weed species in all MA 12 wilderness areas. This would put the Forest Plan in conformance with the BMWC Wilderness Management Implementation Program

ACTIONS NOT REQUIRING FOREST PLAN CHANGES

- Aquatic Habitat
- Economics
- Old Growth
- Recreation
- Rock Creek
- Timber Harvest Schedule
- Vegetative Management

ISSUE: Aquatic Habitat

I. PROBLEM STATEMENT

Monitoring has demonstrated the need to improve our understanding of the long-term effects of management activities and infrequent natural events An example is the unexpected effect of long-term drought on flushing flows, sediment accumulations and water yields. Another case of unexpected natural variability was observed in sediment levels on the North Fork of the Blackfoot as a result of the 247,000 acre Canyon Creek fire Data is also needed on the long-term natural variability of woody debris recruitment, accumulated sediment and fish populations in unmanaged systems.

The Forest Plan only addresses in-stream sediment as a significant factor to be investigated, whereas current research emphasizes the complex relationships among hydrology, aquatic habitat and the surrounding terrestrial environment.

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

Continue to apply current research findings during project analysis

Examine standards and monitoring items to incorporate the current understanding of natural variability in aquatic ecosystems.

Encourage continued research in hydrology and aquatic habitat, and their relationships to the surrounding terrestrial ecosystems Request the National Forest Research and the Regional Office to develop better methods for measuring these relationships

III. RECOMMENDATION AND RATIONALE

Continue to apply current research findings during project analysis

Review and assess Forest Plan monitoring items and standards to determine changes needed to reflect current understanding of aquatic ecosystems

Encourage the continuation of research in hydrology, aquatic habitat and their relationships to the surrounding terrestrial ecosystems Request Forest Service Research and the Regional Office to develop better methods for measuring these relationships

These actions will allow us to:

- have a better understanding of the impact of our management activities on the aquatic environment;
- have better coordination with the Regional Office, adjoining national forests, and other public and private entities; and
- provide a basis for review and possible modification of our standards

ISSUE: Economics

I. PROBLEM STATEMENT

The costs and revenues used in FORPLAN have changed substantially since the Forest Plan was completed. The FORPLAN model used to determine land allocations and timber suitability, is based on coefficients that were derived from best estimates of costs of timber harvest activities and market values of commodities.

Monitoring of those costs and revenues has been done to verify the coefficient values (see monitoring item 9-1). While some coefficients are relatively stable, economic coefficients vary in response to market conditions. These conditions have fluctuated widely since they were first determined in the late 1970's. An economic analysis in 1988 focused on the changing unit costs caused by six years of relatively low timber prices In the four years since that study, economic conditions have changed again with timber product prices and stumpage values at record high levels.

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

Continue to collect, monitor and evaluate the cost and revenue data.

III. RECOMMENDATION AND RATIONALE

Continue to collect, monitor and evaluate the cost and revenue data affecting long range planning of forest management.

ISSUE: Old Growth

I. PROBLEM STATEMENT

MA 21 standards address old growth. To reflect an improved understanding and increased national concern, the Forest Supervisor issued three letters in early 1991 to give more direction to resource managers about managing old growth (see Appendix C) These memos provide the following implementation direction:

1. "..stop harvesting in MA 21 until we know more about how to manage old growth." Exceptions must be reviewed by the Forest Old Growth committee.

2 Protect special groves, retain legacy trees, and maintain existing and develop additional old growth ponderosa pine stands

3 Identify all available old growth by habitat group for all projects on the Seeley Lake Ranger District Defer timber harvest from these old growth stands to meet or exceed the forest's old growth target of 8 percent

Additionally, since 1991 each timber sale analysis has included identifying the old growth in project planning area to help determine the extent of old growth outside MA 21

The Forest Plan's old growth strategy no longer reflects current research for old growth stand sustainability and recruitment needs, or for the amount of old growth present in pre-settlement periods Two zones on the forest of primary concern are.

1 *Mid/Upper Elevation Zone* - In the pre-settlement period, stand replacing fires burned every 80 to 200 years creating a mosaic of different-aged stands Stands reaching old growth conditions tended to be small and isolated from other old growth stands The size of old growth stands varied greatly, but the mean and median size in typical drainages were often less than 100 acres The total amount of old growth in pre-settlement periods tended to represent a relatively small percentage of the landscape, generally five to 15 percent.

The forest plan says a minimum of eight percent of each of the forest's 71 major drainages be managed for old growth characteristics Within each drainage the eight percent is distributed among all six major habitat groups, so all major old growth communities are represented. In this process some old growth stands were not allocated to MA 21

2 *Low Elevation Zone* - In the pre-settlement period, low intensity underburns typically occurred in this elevation zone every five to 30 years, producing large tracts of old growth ponderosa pine, and representing 50 to 65 percent of the ponderosa pine community. In this case, the target for retaining only eight percent of the landscape in old growth is a major departure from pre-settlement conditions

Several wildlife species, including pileated woodpecker and flammulated owl, depend on this old growth community type The flammulated owl, a Region One sensitive species, was not known to occur on the forest when the forest plan was developed

Actual acres of old growth ponderosa pine are below the target level During the allocation of MA 21, drainages were consistently found to have less than the minimum level of old growth

ponderosa pine. Other old growth communities (Douglas-fir, larch, etc) were substituted to meet the eight percent level.

Very little ponderosa pine old growth is recruited. Most stands capable of producing old growth ponderosa pine are overstocked with pole-sized Douglas-fir. These stands are the result of 60 years of fire suppression and turn-of-the-century logging which high-graded the old growth ponderosa pine The resulting stands are stagnated, periodically infested with spruce budworm, vulnerable to root rot and mistletoe, and highly vulnerable to stand-replacing wildfire.

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

1. Consolidate Forest Supervisor memos into an implementation strategy for old growth

2. Develop a revised old growth recruitment strategy for the mid/upper and low elevation zones.

III. RECOMMENDATION AND RATIONALE

1. Consolidate Forest Supervisor memos into an implementation strategy for old growth.

2. Develop a revised old growth recruitment strategy for the mid/upper and low elevation zones.

By implementing these we will implement current research findings for old growth management. We will update the Forest Plan at the next scheduled Forest Plan revision with the results of implementation, monitoring and ongoing research.

ISSUE: Recreation

I. PROBLEM STATEMENT

The plan focused solely on dispersed recreation. Goal 3 says the forest will "provide for a broad spectrum of dispersed recreation involving sufficient acreage to maintain a low user density..."

In the last five years there has been an increase in demand for a wider range of recreational activities. The state has also been encouraging businesses to locate here, touting a "desirable lifestyle" as one of Montana's attributes That lifestyle features outdoor recreation and the forested landscape as key components

Other developments suggesting that current forest plan direction may be too limited include the Chief's National Recreation Strategy and the Secretary of Agriculture's 1990 Renewable Resources Policy Act Program

There is an increasing demand for developed recreational facilities along the lower Clark Fork River But standard 2 of MA 7 limits increases in developed sites to the Chain of Lakes area on the Seeley Lake Ranger District Future development in the lower Clark Fork River corridor could not be constructed without amending the plan

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

1 Monitor recreation demand trends to see if they warrant broadening forest plan direction to include dispersed, developed, and wilderness recreation

2 Examine plans for the lower Clark Fork River corridor against the standards for MA 7 to see if a change is needed.

III. RECOMMENDATION AND RATIONALE

1 Implement action 1 to see if the demand for recreational opportunities on the forest has changed

2 Examine the standards for MA 7 to see if standard 2 is too restrictive to meet current and future needs in the lower Clark Fork River corridor

ISSUE: Rock Creek

I. PROBLEM STATEMENT

Forest plan direction for Rock Creek is in Chapter 4 of the Lolo's plan. In 1990, many people began to express concern about implementing the forest plan direction for Rock Creek. Over a two-year period the Lolo and Deerlodge forest supervisor met with many individuals and organizations about Rock Creek. These meetings included two workshops open to the public. People's overriding concern centered on logging and it's impact on the creek. In response to this concern, the forest supervisors suspended future timber sales in Rock Creek until a thorough drainage-wide analysis can be completed. (See Appendix D)

II. POTENTIAL ACTIONS THAT ADDRESS THE PROBLEM

Complete a drainage-wide analysis when budgets permit.

III. RECOMMENDATION AND RATIONALE

Complete the drainage-wide analysis and compare its findings to the current Lolo and Deerlodge plans. Amend the plans, if decisions made in the plan change as a result of the analysis.

ISSUE: Timber Harvest Schedule

I. PROBLEM STATEMENT

Appendix E of the forest plan contained a 10-year timber harvest program based on an allowable sale quantity of 1 07 billion board feet per decade. The actual timber harvest program for the first five years of plan implementation is much different from the program proposed in the plan

The difference can be attributed to three primary reasons·

1) A change in conditions of the suitable timber base. In 1989 the forest recognized a it could not schedule a 107 million board feet annual timber sale program. This led to an assessment of the amount of timber the forest could schedule for sale. During the assessment, an interdisciplinary team of resource and management specialists reviewed every major drainage on the forest to determine the condition of the lands designated "suitable" for timber harvest. Based on this assessment, the forest supervisor decided to set the harvest program from 1992 through 1996 at a level that "provides a more stable and realistic timber program" See appendix E of this five year review for the supervisor's letter to the public explaining the conditions that lead to the revised timber sale program

2) A change in the agency's direction on forest management In June of 1992 the Chief of the Forest Service initiated an ecological approach to managing the national forests and grasslands. See appendix B for the Chief's letter This ecological approach will affect the timber sale program. However, it is too early to predict with any accuracy how it will be affected

3) A decrease in forest budgets

To take into account the changes occurring over time in the forest's timber sale program, the forest sets an annual timber sale program for the next five-year period. This five-year program is updated annually based on site conditions, progress of sale preparation, budgets, and management concerns

II. PROPOSED ACTIONS

A. Potential Actions That Address the Problem

Annually reassess forest conditions affecting timber harvest and set the five-year timber sale program accordingly

B. Recommendation and Rationale

Annually reassess forest conditions and set the timber sale program for the next five years. This annual reassessment would accommodate the dynamic nature of forest management

ISSUE: Vegetative Management Practices

I. PROBLEM STATEMENT

In 1992, a task force was established to review the forest plan's vegetative management practices (see forest plan appendix C-3) Two things prompted the review.

First, monitoring shows the forest has concentrated on clearcutting and seed tree cutting. Although we've not exceeded the plan's projection for the total acres to be harvested by these methods, the proportion of clearcuts and seed tree cuts to partial cuts is higher than the plan projected.

Monitoring item 3-12 shows that for the period from FY 1987 to FY 1991, an average of 3544 acres were clearcut or seed tree cut annually, whereas an average of only 900 acres where harvested annually by other methods. The forest plan projected clearcut and seed tree harvests to be only about 23% of the total acres harvested.

Second, the forest's current vegetative management guidelines do not provide the emphasis on ecological principles as directed by the Chief's announcement to use an ecological approach in managing national forests (see Appendix B). In the past, decisions about what silvicultural treatment to use emphasized harvesting high-productivity sites, replacing forest stands with rapidly growing trees, and offering economically viable timber sales. In the future, decisions need to be based on a broader range of silvicultural treatments that recognize ecosystem needs

The task force has been established to propose changes to the forest plan's vegetative management practices. The task force will develop silvicultural prescriptions to be used in implementing ecosystem management.

II. PROPOSED ACTIONS

A. Potential Actions That Address the Problem

1. Enforce the levels of timber harvest to the proportions as projected in the Forest Plan.

2 Apply the vegetative management practices and silvicultural prescriptions developed by the task force

B. Recommendation and Rationale

Implement action 2. Apply the new vegetative management practices and silvicultural prescriptions to reflect the broader range of values represented in ecosystem management, rather than the wood-fiber production emphasis of the past

SUMMARY

SUMMARY

The five year forest plan review has surfaced changed conditions within 14 different issues that forest management believes are significant enough to take further action. Below is a summary, in tabular form, of the recommended actions within each of the 14 issues as detailed in the review

ACTIONS NEEDING FOREST PLAN CHANGES

The forest will proceed with making changes to the forest plan listed in the table below. The significance of actions proposed, as defined in the National Environmental Policy Act, will be determined as the first step in implementing each action.

ISSUES	RECOMMENDATION
BIG GAME WINTER RANGE	Reword standard 7 of MA 18, and standard 6 of both MA 22 and MA 23 to consider as thermal cover, lands within or adjacent to the forage producing parts of the winter range
ECOSYSTEM MANAGEMENT AND FOREST HEALTH	Change the wording of goal 4 and 8, Standard 44, and Standards 56, 57, and 58 to reflect the focus on forest health and ecosystem management
ELK SECURITY	Incorporate elk security in monitoring item 1-2 In addition to this, evaluate possible changes to standard 26 to clarify the shared responsibilities of the forest and Montana Department of Fish, Wildlife and Parks to provide elk security
HERITAGE PROGRAM	Change standard 54 to reflect the forest's expanded role to include identification, protection, enhancement and interpretation of cultural resources
LIVESTOCK GRAZING	Revise standard 9 of MA 14 and Rock Creek standard 21 to reduce bluegrass and shrub utilization standards so riparian zones will be adequately protected, and reallocate MA 15 lands to MA 1 In addition to these forest plan changes, continue to work closely with range permittees to get range allotments to comply with forest plan standards
SENSITIVE, THREATENED AND ENDANGERED SPECIES	Change standards 24 and 27 to reflect the need to coordinate sensitive, threatened and endangered species programs across administrative boundaries Change wording in goal 2 to direct the goal towards both plant and animal species Develop a new standard for sensitive species that will be consistent with Forest Service Manual and Handbook direction Add an open road density standard for occupied grizzly bear habitat In addition to these forest plan changes, the four forest supervisors within the NCDE will direct that a consistent implementation strategy be put in place to eliminate human waste as a food source for grizzly bears
WILDERNESS RESOURCE	Develop wording to include the management of wilderness in the Forest-wide management direction Evaluate the effects of implementing such direction Change MA 12 direction requiring the forest to eliminate noxious weed species

ACTIONS NOT REQUIRING FOREST PLAN CHANGES

Changes not requiring Plan changes will generally be implemented through changes in project level decisions, further studies, improved coordination with groups and individuals outside the Forest Service, in-service, awareness and training, and evaluation at the time of the next scheduled revision. The following table summarizes actions that will be taken upon completion and acceptance of this five year review

ISSUES	RECOMMENDATION
AQUATIC HABITAT	Continue to apply current research findings during project analysis, review and assess forest plan monitoring items and standards to determine changes needed to reflect current understanding of aquatic ecosystems, and encourage the continuation of research in hydrology, aquatic habitat and their relationships to the surrounding terrestrial ecosystems
ECONOMICS	Continue to collect, monitor and evaluate cost and revenue data
OLD GROWTH	Consolidate previous forest supervisor memos into an implementation strategy for old growth, and develop a revised old growth recruitment strategy for the mid/upper and low elevation zones
RECREATION	Monitor recreation demand trends to see if they warrant broadening forest plan direction to include dispersed, developed, and wilderness recreation Examine the standards for MA 7 to determine if standard 2 is too restrictive to meet current and future needs in the Lower Clark Fork corridor
ROCK CREEK	Complete a drainage-wide analysis when budgets permit
TIMBER HARVEST SCHEDULE	Annually reassess forest conditions affecting timber harvest and set the five-year timber sale program accordingly
VEGETATIVE MANAGEMENT PRACTICES	Apply the vegetative management practices and silvicultural prescriptions developed by the forest's prescription task force

APPENDIX A

PAST AMENDMENTS TO THE FOREST PLAN

APPENDIX A - PAST AMENDMENTS TO THE FOREST PLAN

1 Nonsignificant amendment (Aug. 7, 1986). Amended Standards 31 and 35 of Management Area 28 to clarify the location of a Rattlesnake trail head facility.

2. Nonsignificant amendment (April, 1987). Replaced Appendix O-2 with the recreation management direction for the Bob Marshall Wilderness Complex This was a joint amendment of the Flathead, Lewis and Clark, Helena, and Lolo National Forests

3. Nonsignificant amendment (April 14, 1987). Revised Standard 22 and added Standard 34a to Management Area 28. Minimized the restrictions on dogs in the Rattlesnake National Recreation Area.

4 Nonsignificant amendment (March 10, 1989). Modified Management Areas 16, 18, and 21 boundaries on 164 acres in the Sevenmile drainage of the Superior Ranger District Adjustments made to improve old growth values and long term timber management in the area

5 Nonsignificant amendment (May 3, 1990). Amended Standards 18, 31 and 35 of Management Area 28 to facilitate construction of a Rattlesnake horse trailhead

5A Nonsignificant amendment (Aug. 9, 1990) Corrected mapping of management area boundaries for 172 acres on the Superior District

6. Nonsignificant amendment (Aug. 21, 1990). Corrected mapping of management area boundaries for 270 acres on the Plains/Thompson Falls District.

7. Nonsignificant amendment (Sept. 17, 1990). Corrected mapping of management area boundaries on the Plains/Thompson Falls District, Superior District, Missoula District, and the Seeley Lake District. Amended Forest-wide Standard 24 to establish coordination with the Interagency Grizzly Bear Guidelines

8 Nonsignificant amendment (Oct. 22, 1990) Corrected management area boundaries for 423 acres on the Plains/Thompson Falls District

9 Remanded nonsignificant amendment (Nov. 20, 1990) Corrected management area boundaries 426 acres on the Seeley Lake District Amendment was appealed and remanded Further analysis is being conducted

10 Nonsignificant amendment (Mar. 12, 1991). Amended forest plans on the Beaverhead, Bitterroot, Deerlodge, Flathead, Gallatin, Helena, Idaho Panhandle, Kootenai, Lewis & Clark, Lolo and Nezperce National Forests to partition the Allowable Sale Quantity (ASQ) into two non-interchangeable components for roadless and roaded lands This was a regional amendment that was appealed and remanded

11 Significant amendment (April 12, 1991) Added new forest-wide standards, monitoring items, and guidelines for weed prevention and noxious weed control projects

12 Nonsignificant amendment (Aug. 15, 1991). Identified which rivers meet the Wild and Scenic Rivers Act eligibility qualifications; assigned each eligible river a potential classification; and identified the wild, scenic, and recreational river management standards developed to manage and protect each eligible river while they received further study.

13. Nonsignificant amendment (Dec 19, 1991) Re-allocated 70 acres from Management Area 24 to Management Area 9 to facilitate the construction of a new trailhead on the Seeley Lake District.

14 Nonsignificant amendment (Feb. 1992). Incorporates the revised management direction for the Selway-Bitterroot Wilderness, which is contained in "Selway Bitterroot Wilderness General Management Direction." This was a joint amendment for the Bitterroot, Clearwater, Lolo, and Nez Perce Forests

APPENDIX B

CHIEF's LETTER MANDATING
ECOSYSTEM MANAGEMENT

United States Department of Agriculture | Forest Service | Washington Office | 14th & Indepdence SW P.O. Box 96090 Washington, DC 20090-6090

REPLY TO: 1330-1 **Date:** June 4, 1992

SUBJECT: Ecosystem Management of the National Forests and Grasslands

TO: Regional Foresters and Station Directors

We have made good progress over the past 3 years in experimenting with more environmentally sensitive ways to manage the National Forests and Grasslands under our New Perspective program. We learned a lot from our field demonstration projects, research effort, university symposia, and workshops. Mostly what we learned is that ecosystem management works and it is where we need to be headed with our research program and the management of the National Forests and Grasslands

The Chief and Staff decided last month that it was time to take what we have learned over the past 3 years and implement a new management philosophy for the National Forests and Grasslands. Putting this in simple terms, we have been courting the ecosystem approach for 3 years and we like the relationship and results Today, I am announcing the marriage and that the Forest Service is committed to using an ecological approach in the future management of the National Forests and Grasslands

By ecosystem management, we mean that an ecological approach will be used to achieve the multiple-use management of the National Forests and Grasslands. It means that we must blend the needs of people and environmental values in such a way that the National Forests and Grasslands represent diverse, healthy, productive, and sustainable ecosystems. I'm confident that with our knowledge, expertise, and experience along with a stronger public involvement effort, we can bring the American people and their needs together with the land they own in a better way than it has ever been done before by anyone in the world That's our challenge under this new policy of ecosystem management

An ecological approach to managing the National Forests and Grasslands is the right way to go because forests are dynamic and complex ecosystems Forest ecosystems change over time whether managed by people or not Our management and care is essential to providing diverse and productive habitat for wildlife and fisheries, clean water, clean air, outstanding opportunities for outdoor recreation, natural wood products for American families, and long-term stability to the ecosystem. In a global framework, the forests play a vital role in being the lungs of the earth absorbing carbon dioxide and giving off oxygen. The forests also serve as an important air filter by taking pollutants out of the air and storing them in the forests These are important reasons why we must put the management of National Forests and Grasslands on an ecological basis I know this is a tall order, but I believe we are now in good position to do it, and I have confidence in the capability of Forest Service people.

As we learned under New Perspectives, there are three very important points that must be carried forward to make ecosystem management successful:

1. Public involvement - Like never before, the Forest Service must renew its commitment to public involvement and actively seek out and incorporate people's views in our decisions about the management of the National Forests and Grasslands. I envision a new, higher level of dialogue or partnership with the American people to go along with ecosystem management. This is even more important now in view of the proposed changes in the administrative appeal process.

2. Conservation partnerships - Coupled with public involvement, we must expand our partnerships with State and local governments, the private sector, conservation organizations, and anyone else who has a shared interest in the National Forests and Grasslands. Let's get them more involved in helping get the conservation job done. The job is simply too big for the Forest Service working alone Let's challenge people to lend a helping hand by working together in partnership.

3. Land manager/scientist partnership - We have made great progress under New Perspectives to get land managers and scientists working together as a team in doing the best job possible. Let's keep it up and make sure our decisions reflect the best science and close the gap between the level of scientific knowledge and its application in our day-to-day management

To further round out the new policy on ecosystem management as defined above, the following basic principles will apply to the future management of the National Forests and Grasslands:

1. "**Take Care of the Land**" by protecting or restoring the integrity of its soils, air, waters, biological diversity, and ecological processes

2. "**Take Care of the People and their Cultural Diversity**" by meeting the basic needs of people and communities who depend on the land for food, fuel, shelter, livelihood, recreation, and spiritual renewal

3. "**Use Resources Wisely and Efficiently to Improve Economic Prosperity**" of communities, regions, and nations by cost-effective production of natural resources such as wood fiber, water, minerals, energy, forage for domestic animals, and recreation opportunities

4. "**Strive for Balance, Equity, and Harmony Between People and Land**" across interests, across regions, and across generations by sustaining what Aldo Leopold (1949) called the land community, meeting this generation's resource needs, and maintaining options for future generations to also meet their needs

To further add meaning to the policy and principles, I am attaching a set of working guidelines for ecosystem management (attachment 1)

A special issue that we must deal with under ecosystem management is clearcutting. We must accelerate the reduction in clearcutting as a standard commercial timber harvest practice on the National Forests. In making future forest management decisions, clearcutting is to be used only where it is essential to meet specific forest plan objectives and within the circumstances outlined in the attached policy paper (attachment 2)

In summary, the above policy, principles, and guidelines provide firm direction to manage the National Forests and Grasslands on an ecological basis in the future. Yet, there is much room and flexibility for the professionals on the ground in working with the public to work out the many details to practice ecosystem management on each National Forest

I am asking each Regional Forester and Station Director to work together in evaluating their regional situation and within 90 days develop a strategy for implementing the above policy, principles, and guidelines. We need to make good progress at a reasonably rapid pace without disrupting programs, recycling project decisions, or redoing project field work. Also, you will need to take advantage of the flexibility within existing forest plans to practice ecosystem management. As forest plans need to be amended or revised they should reflect the above policy on ecosystem management

We have just celebrated the 100th Anniversary of the National Forest System. In our history, we have built upon Gifford Pinchot's 1905 philosophy of "conservation and wise use" and "the greatest good for the greatest number in the long run" with the 1960 multiple-use philosophy for sustained yield of natural resources

We begin our next century with an additional perspective. Ecological management with a higher sensitivity to all of the environmental values of the National Forests is the next logical step in our mission of caring for the land and serving people Each of you can feel that you truly have been a part of history, and I hope you share my excitement and enthusiasm for the future as we head down the road toward ecosystem management as the best way to meet our multiple-use mandate

/s/ F Dale Robertson

F DALE ROBERTSON
Chief

Enclosures

cc
NA
WO Staff

Attachment 1

Working Guidelines for Ecosystem Management

1. Focus on desired present and future conditions of the land and its human communities. Focus management actions to achieve desired current and future conditions of the land at multiple scales (Caplan 1992), always seeking to balance goals for the land:

--the beauty of the land,
--the stability and fertility of its soils,
--the quality and flows of its waters,
--the clarity of the air,
--the diversity of plants, animals, and biological communities, and
--the interconnectedness and character of habitats and landscapes that provide for the health and resilience of ecological systems and processes,

with goals for the people·

--the prosperity,
--the diversity, and
--the health and vitality of the people who depend on the land for their livelihoods, outdoor recreation opportunities, and inspirational experiences

Desired conditions must take into consideration economic feasibility and the health, productivity, and resilience of the land over time in the face of unplanned and uncertain future events such as fires, storms, and insect epidemics (Waring and Schlesinger 1985, Botkin 1990) They must also consider continental and global economic and environmental effects of choices made at local and regional scales, e g , the energy costs of alternative materials

2. *Integrate thinking and actions at multiple spatial and temporal scales.* *Think about* the effects of proposed actions at several geographic scales and through time (Forman and Godron 1986), at least one scale larger and one scale smaller than the scale you are working at and at least for several decades in the future; more and longer if possible

3. Be especially careful in sensitive areas. Protect special places such as wetlands, endangered species, rare plant populations, and cultural resources

4. Employ the ecological capabilities and processes of the land. Work within the ecological potential of sites and landscapes, maintain native diversity, and employ nature's processes to the greatest degree possible.

5. Get people involved in planning and carrying out project work. Involve interested and affected people in the full process of making decisions about common resources; plan as if you are in a fishbowl to make sure everyone who wants to has access and knows what is going on, make conservation partnerships the rule rather than the exception.

6. Involve scientists through adaptive management. Monitor research, interpret, and adapt--integrate research with operational management and set resource management up as the continual experiment and learning opportunity that it always has been and always will be.

7. Integrate resource management for operational efficiency. Integrate resources, integrate actions across geographic scales, and build a community of interests--integrate everything and all the time but not necessarily everything on every acre at all times--this is biologically impossible and, therefore, technically infeasible Use good judgment!

Attachment 2

Reduce Clearcutting on the National Forests

The objective of this new provision is to reduce clearcutting on National Forest System lands and make greater use of individual tree selection, group selection, green tree retention, shelterwood, seed tree, and other regeneration cutting methods which collectively provide for a more visually pleasing and diverse vegetative appearance on a forest-wide basis

This policy would reduce clearcutting where it has been used as a standard timber harvest practice on the National Forests. Clearcutting would be limited to areas where it is essential to meet forest plan objectives and involve one or more of the following circumstances:

1. To establish, enhance, or maintain habitat for threatened, endangered, or sensitive species

2. To enhance wildlife habitat or water yield values, or to provide for recreation, scenic vistas, utility lines, road corridors, facility sites, reservoirs, or similar development

3. To rehabilitate lands adversely impacted by events such as fires, windstorms, or insect or disease infestations

4. To preclude or minimize the occurrence of potentially adverse impacts or insect or disease infestations, windthrow, logging damage, or other factors affecting forest health

5. To provide for the establishment and growth of desired trees or other vegetative species that are shade intolerant

6. To rehabilitate poorly stocked stands due to past management practices or natural events

7. To meet research needs

This clearcutting policy combined with the new USDA-Forest Service ecosystem management can reduce clearcutting by as much as 70 percent from FY 1988 levels The reduction on timber volume over the short-run is likely to be about 10 percent. There would be little reduction in timber volume over the long-term. There will be increases in timber sale costs and some areas will not be harvested because local timber industries do not have appropriate logging equipment to use other methods on steep slopes However, judicious use of alternative harvest methods can be substituted for clearcutting on most areas of the National Forests

Attachment 3
Andy Fisher (202) 205-1055
Edwin Moffett (202) 720-4026

USDA TO ELIMINATE CLEARCUTTING AS STANDARD PRACTICE ON NATIONAL FORESTS

WASHINGTON, June 4--Clearcutting will no longer be a standard way of harvesting national forest timber under a proposal announced today by the U S Department of Agriculture.

"The new policy will limit clearcutting to areas where it is essential to meet forest plan objectives, such as establishing habitat for endangered species of wildlife," said USDA's Forest Service Chief F. Dale Robertson

Robertson said the proposed clearcutting policy is part of a more ecological approach to management of the Forest Service's 191-million-acre national forest system

Clearcutting is a harvest method in which all trees are removed at the same time from a site It is used primarily to reforest tree species which require full sunlight to grow and to create habitat for certain kinds of wildlife, such as deer and elk

"Although it is a proven forest management tool, clearcutting has become increasingly controversial on national forests because of its appearance and impacts on other resources," Robertson said "The new policy addresses public concerns and expands current efforts to decrease the use of this harvesting method on national forest lands ,"

Current regulations, established under the National Forest Management Act of 1976, limit national forest clearcuts to 40 acres or less except for Douglas-fir, southern yellow pine, and Alaskan hemlock-sitka spruce forests where they may be larger In the past few years, the Forest Service has decreased the number of clearcuts and substituted more visually acceptable harvest methods, Robertson said

-more-

In 1988, clearcutting was used on 310,000 of the 728,424 acres of national forest that was harvested

"The new policy, in conjunction with the Forest Service's new ecological approach to land management, can reduce clearcutting by as much as 70 percent from 1988 levels," Robertson said.

In 1990, the Forest Service initiated a program, called New Perspectives, to practice more environmentally sensitive forestry. This approach calls for greater use of harvesting methods that leave green trees and downed woody material on site

The proposed reduction in clearcutting may reduce timber yields on national forests by about 10 percent in the short run, Robertson said, and there will be some increases in timber sale costs.

"However," he said, "we believe the long term environmental and esthetic benefits of reduced clearcutting and its accompanying controversy will outweigh any possible short term losses Judicious use of alternative harvest methods such as selective cutting can be substituted for clearcutting on most national forest areas And, in the long run, timber yields will be about the same."

Under the proposed policy, clearcutting would no longer be allowed as a standard commercial harvesting practice Instead it would be allowed only under one or more of the following circumstances:

1 To establish, enhance, or maintain habitat for threatened, endangered, or sensitive species.

2 To enhance wildlife habitat or water yields values, or to provide for recreation, scenic vistas, utility lines, road corridors, facility sites, reservoirs, or similar developments

3 To rehabilitate lands adversely impacted by events such as fires, windstorms, or insect or disease infestations

4. To preclude or minimize the occurrence of potentially adverse impacts of insects or disease infestations, windthrow, logging damage or other factors affecting forest health

5 To provide for the establishment and growth of desired trees or other vegetative species that are shade intolerant

6. To rehabilitate poorly stocked stands due to past management practices or natural events

7 To meet research needs

#

APPENDIX C

FOREST SUPERVISOR LETTERS
ON OLD GROWTH MANAGEMENT

United States Department of Agriculture | Forest Service | Lolo National Forest | Building 24 Fort Missoula Missoula, MT 59801

REPLY TO: 1920/2600 **Date:** February 11, 1991

SUBJECT: Treatment of Management Area 21

TO: District Rangers and Program Officers

Questions were raised about the appropriateness of harvesting in Management Area 21 (old growth on suitable land) during the 1990 timber sale monitoring reviews. At the December Management Team Meeting, we decided to stop harvesting in Management Area 21 until we know more about how to manage old growth.

There may be exceptions to this interim direction. However, such exceptions must be reviewed by the forest old growth committee (forest ecologist Jack Losensky, wildlife biologist Mike Hillis, and forest silviculturist Vick Applegate) and approved by the Forest Supervisor.

Also, woodcutting may be adversely impacting Management Area 21. Until we have data to better evaluate the effects of woodcutting on snags, insure that these areas are not open to woodcutting.

If you have any questions, contact Bob Meuchel or Mike Hillis.

ORVILLE L DANIELS
Forest Supervisor

cc. Resource Specialists

United States Department of Agriculture | Forest Service | Lolo National Forest | Building 24 Fort Missoula Missoula, MT 59801

REPLY TO: 2070/2470 **Date:** February 11, 1991

SUBJECT: Special Grove Management, Legacy Trees and Old Growth Ponderosa Pine Communities

TO: District Rangers and Program Officers

Special old-growth groves, legacy trees, and old growth ponderosa pine communities are important components of biological diversity and have significant social value This letter outlines interim direction for retaining these three resources.

Special Old-Growth Groves

These groves contain the oldest representatives of late seral or climax communities that we have on the Lolo or contain trees of uncommon size, age, height or ecological character

The following are examples of special groves, which have been retained by district ranger decisions.

> The first is two acres of very old western larch in the Finley Creek drainage on the Seeley Lake Ranger District The forest silviculturist estimates the oldest tree is nearly 600 years old
>
> The second is a stand of mountain hemlock adjacent to the highway near Thompson Pass on the Plains/T-Falls Ranger District The climax mountain hemlock there are 330 years of age.
>
> The third is a vigorous 49-acre stand of western red cedar along Gilt-Edge Creek on the Superior Ranger District The trees are about 250 years old and some are more than 6-feet in diameter

I agree with the decisions to not harvest such groves Instead, we should manage in a way that perpetuates their character Grove management should be considered during the project planning process

A special grove could be in any management area There is not a set number of groves. Instead, we should look at this as an opportunity to perpetuate a limited recourse

I have requested a new TSMRS data base code to help track these groves. In addition, Forest Silviculturist Vick Applegate has developed a data table to list grove location and characteristics.

Legacy Trees

It is important to retain an appropriate number of large, old trees in harvest units. Called legacy trees, they have aesthetic qualities, help maintain a storied structure for vertical diversity, product seed, and provide future snags Because of such values, the retention of legacy trees should be addressed during project planning

Large, old trees are valuable and they take centuries to replace We must plan for and retain an appropriate number in harvest units Exceptions may occur as approved by district rangers, but our *goal is to retain legacy trees*

Old Growth Ponderosa Pine Communities

We have lost an important element of biological diversity because of past logging of old growth ponderosa pine communities We need to give more attention to old-growth ponderosa pine communities and increase their representation in the future.

Historically, ponderosa pine communities were a component of old-growth on the Lolo. Research by Forest Ecologist Jack Losensky suggests a majority of Lolo old-growth occurred at low elevations and burned frequently. Fire occurred every 5-25 years and maintained park-like ponderosa pine communities comprising centuries-old trees.

Low-elevation pine communities were among the first trees to be harvested in the last 1800's. For example, the military logged the big pine in Pattee Canyon in the 1870's to construct Fort Missoula. From 1885-1915, the Bitterroot Valley was logged for building materials, mine timbers, railroad ties and fuel used by the copper empire in Butte. A large amount of pine on national forest land was logged in the 1960's.

People not only harvested the large old trees, but also extinguished the fires that are needed to sustain the old-growth ponderosa pine communities. In the absence of fire, Douglas-fir has replaced or become the dominant tree species on many former ponderosa pine sites.

The few stands of old-growth ponderosa pine that remain are extremely valuable and should be maintained. Interdisciplinary teams working on projects in ponderosa pine communities need to be alert to this. Bring any old growth ponderosa pine stands to the attention of the district ranger and the forest old-growth committee so they can assess the management strategy. Also, in drainages where old growth ponderosa pine is lacking, teams need to look for opportunities to develop this community.

Summary

The retention of groves, legacy trees, and old growth ponderosa pine communities will help us meet the following forest-wide goals: 1) provide habitat for viable populations of all indigenous wildlife species and for increasing populations of big-game animals; and 2) provide a pleasing and healthy environment, including clear air, clean water, and diverse ecosystems

Ultimately, we'll need to address these three resources in the forest plan. Our interim direction is to protect them as we learn more about ecosystem processes and how to manage to biological diversity.

ORVILLE L DANIELS
Forest Supervisor

cc Resource Specialists

United States Department of Agriculture | Forest Service | Lolo National Forest | Building 24 Fort Missoula Missoula, MT 59801

REPLY TO: 1920 **Date:** September 11, 1991

SUBJECT: Old Growth Situation at Seeley Lake RD, Interim Direction

TO: Program Officer, Planning

During the December Management Team, the old growth situation at Seeley Lake was discussed. That situation is

1. When the forest plan was developed, a decision was made that no MA 21 need be allocated at Seeley Lake because there was a high percentage of roadless and wilderness lands on the district That decision assumed that the roadless and wilderness land contained enough old growth with adequate spatial and community distribution to meet or exceed the 8% old growth standard set in the forest plan.

2 An age class analysis completed by Jack Losensky indicated that the wilderness and roadless lands probably do not have old growth either adequate to meet the 8% minimum, or to meet the distribution requirement

3 The problem may have been exacerbated by the Canyon Creek Fire, which consumed some old growth

Recognizing this problem, Anne Zimmermann has directed her staff to:

1 Identify on a project-by-project basis within the cumulative effects analysis area, all old growth available by habitat group

2. Defer timber harvest from enough old growth stands to meet or exceed the forest plan old growth standard (8% per drainage with all habitat groups represented)

I support Anne's decision During our re-analysis of the old growth issue, it's possible that we will make some changes in the way we allocate and manage old growth. This interim direction will protect enough old growth so that we'll have a wide range of options available when we change the old growth allocation

This will be the interim direction until we have fully re-evaluated the old growth issue.

ORVILLE L. DANIELS
Forest Supervisor

cc: District Rangers

APPENDIX D

LOLO AND DEERLODGE SUPERVISORS
LETTER ON ROCK CREEK

United States Department of Agriculture | **Forest Service** | **Deerlodge National Forest** | **Federal Building P.O. Box 400 Butte, MT 59703**

Reply to: 1920

Date: February 26, 1993

Dear Interested Party:

In June, 1991, we announced that we were suspending work on all but three timber sales, pending a public review of the forest plan direction for Rock Creek. As part of that review we solicited comments at two public workshops

We have now completed the public review of the Lolo and Deerlodge forest plans for Rock Creek and have decided to continue the suspension of all work on future timber sales with the exception of the Pat Gulch Post and Pole Sale, which was approved in December 1991, and the Upper Camp-Duncie Timber Sale for which a draft environmental impact statement was released in January, 1993

The overriding concern on the part of the public centers around logging and its impact on the character of the creek Most people want Rock Creek to be managed for fish, water quality, recreation, and wildlife. They are concerned that logging will damage these resources. It is clear from the comments that logging in Rock Creek should be pursued only when it can be shown to sustain these other resources This is not the basis upon which the current timber sale program is formed

The suspension of timber sales will continue until we have completed a new planning process for the entire Rock Creek drainage based on principles of ecosystem health. At present our budget does not permit us to begin this process immediately. We anticipate we will begin this planning process in the next couple of years.

When we initiate the drainage-wide, ecosystem planning process we will get back in touch with you Thank you for participating in the Rock Creek review

Sincerely,

/s/ Van C. Elsbernd

VAN C. ELSBERND
Forest Supervisor
Deerlodge National Forest

/s/ Orville L. Daniels

ORVILLE L. DANIELS
Forest Supervisor
Lolo National Forest

APPENDIX E

FOREST SUPERVISOR LETTER FOR 1992-1996
TIMBER HARVEST SCHEDULE

United States Department of Agriculture | **Forest Service** | **Lolo National Forest** | **Building 24 Fort Missoula Missoula, MT 59801**

Reply to: 1920

Date: September 11, 1991

Dear Concerned Citizen,

The Lolo has found it necessary to reduce its timber sale level for the next five years We're establishing our timber sale program at a level substantially below the Allowable Sale Quantity (ASQ) we set in our forest plan in 1986. I'd like to discuss how much we plan to sell and the reasons for the change.

The Lolo Forest Plan set an ASQ of 1.07 billion board feet per decade, an annual average of 107 million board feet (MMBF) per year. ASQ is defined as the upper limit of the amount of timber that can be sold during the decade.

For the last five years we have prepared timber sales according to the direction set in the forest plan, analyzed the results and found that we cannot schedule 107 MMBF

We have been selling an annual average of 72 MMBF for the past 10 years In order to put forth an achievable program we now plan to offer 58 MMBF for sale in 1992, and an average of 51 MMBF per year for the years 1993 - 1996 This sale level provides a more stable and realistic timber program for the next five years.

During the last 18 months, more detailed monitoring and evaluation has revealed the analysis for our forest plan contained some incorrect assumptions. We assumed all the 1 24 million acres of land with merchantable trees designated as "suitable" for timber harvest would be available for harvest In at least four cases, this assumption no longer holds up.

First, the rate of logging has been higher than we anticipated on about 400,000 acres of privately-owned forested lands within the boundaries of the Lolo The cumulative effects of both private cutting at the current rate and Lolo cutting at the planned rate would violate resource protection standards for wildlife cover and watershed buffering. The result is a significant reduction in harvest on 289,000 "suitable" acres

Second, we intensively logged some areas during the last three decades. During the 1960's and 1970's we sold an annual average of 129 MMBF, a level higher than the ASQ set in the forest plan We've found 333,000 "suitable" acres where over 30 percent of the acres have been harvested Many of these areas cannot be re-entered yet because more cutting would violate standards for wildlife protection, water quality, and the appearance of forest landscapes

A third factor restricting sales is the controversy over the Lolo's 36 roadless areas, amounting to 263,000 "suitable" acres. Heightened interest in roadless areas has increased the time and cost of preparing timber sales Some timber offered from roadless areas are small sales; the cost of preparing environmental impact statements for them is prohibitive. While we will continue to offer sales in roadless areas, some sales may not be possible.

Fourth, the forest plan assumed merchantable trees were spread evenly across the forest In reality, on about 280,000 acres where wildfires burned from 1910 to 1935, fire created many large areas of young trees Many trees in these relatively young forest stands will not be economical to log for twenty or thirty years.

For the reasons described, harvest will be reduced on about 950,000 acres, amounting to 77 percent of the "suitable" land. The Lolo Forest Plan will be amended to reflect our findings

The forest plan was always intended to be dynamic. Despite our best efforts to predict the future, sometimes things change in a way we did not consider Other times we simply acquire new information We will adjust the plan as the situation warrants. I will keep you posted so you can participate in the forest plan amendment process

Sincerely,

/s/ Orville L Daniels

ORVILLE L DANIELS
Forest Supervisor

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PHYSICAL
FILE